

More On E-R Diagrams



CST 270 – System Analysis & Design
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Objectives

- Discuss modeling organizational systems using Entity-Relationship (E-R) models
- Explain Entities and their Relationships as they relate to organizational elements
- Discuss the types of relationships and the importance and their illustration
- Explain the process of creating E-R diagrams to model organizational systems

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Depicting Systems Graphically

- Context-level data flow diagrams
- Entity-relationship model
- Use case modeling

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Entity-Relationship Models

- Focus is on the entities and their relationships within the system
 - Another way to show the scope of a system
- Relationships show how the entities are connected.
- We'll see more about this very soon!

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Entity-Relationship Model

- Focus is on the entities and their relationships within the system
 - Another way to show the scope of a system
- Relationships show how the entities are connected.
 - Three basic types of relationships:
 - One-to-one
 - One-to-many
 - Many-to-many

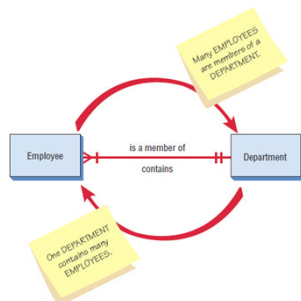
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Entity-Relationship EX (Fig. 2.7)



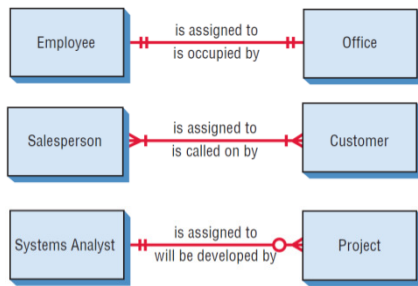
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E-R Diagram Relationships EX (Fig. 2.8)



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Creating Entity-Relationship Diagrams

- List the entities in the organization & diagram their relationships
- Focus on the key entities to narrow the scope of the problem at hand
- Identify what the primary entity should be
- Confirm the results of the above through data gathering

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Summary

- Discussed three means to depict systems graphically including data flow diagrams, E-R diagrams, and use cases/scenarios
- Explained the means context-level data flow diagrams use to depict systems
- Discussed the Entity Relationship model including entities and their relationships
- Explained use case modeling and its major elements including actors, behavior relationships, and their graphical depictions
- Discussed use case scenarios including the major sections and their elements

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Questions?



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